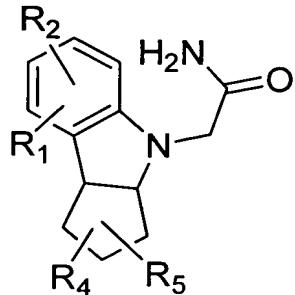


What is Claimed:

1. A compound of the formula:



5 wherein R₁, R₂, R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

10

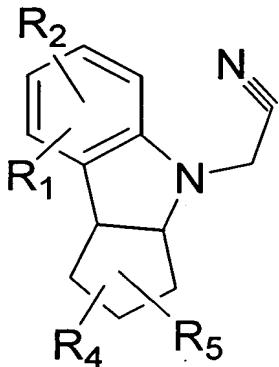
2. A compound of Claim 1 wherein R₁ and R₂ are hydrogen, and R₄ and R₅ are as defined in Claim 1.

15 3. A compound of Claim 1 wherein R₁, R₂ and R₄ are hydrogen, and R₅ is as defined in Claim 1.

4. A compound of Claim 1 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)-acetamide.

20

5. A compound of the formula:



wherein R₁, R₂, R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1

5 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

10 6. A compound of Claim 5, wherein R₁ and R₂ are hydrogen, and R₄ and R₅ are as defined in Claim 1.

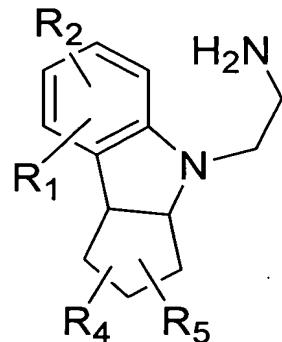
7. A compound of Claim 5, wherein R₁, R₂ and R₄ are hydrogen, and R₅ is as defined in Claim 1.

15 8. A compound of Claim 5, which is 2-(2,3,3a,8b-Tetrahydro-1H-cyclopenta[b]indol-4-yl)-acetonitrile.

20

25

9. A compound of the formula:



wherein R₁, R₂, R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1

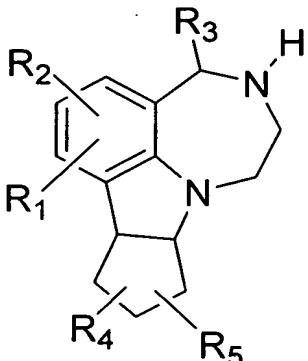
5 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

10 10. A compound of Claim 5 wherein R₁ and R₂ are hydrogen, and R₄ and R₅ are as defined in Claim 1.

11. A compound of Claim 5 wherein R₁, R₂ and R₄ are hydrogen, and R₅ is as defined in Claim 1.

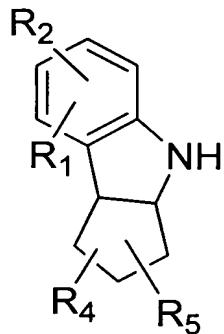
15 12. A compound of Claim 5 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)- ethylamine.

13. A process for synthesis of a compound of the formula:



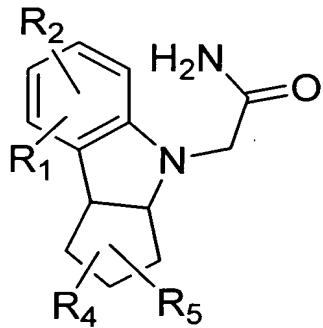
wherein R₁, R₂, R₃, R₄ and R₅ are as defined in Claim 1, the process comprising the steps of:

a) converting a cyclopenta[b]indole compound of the formula:

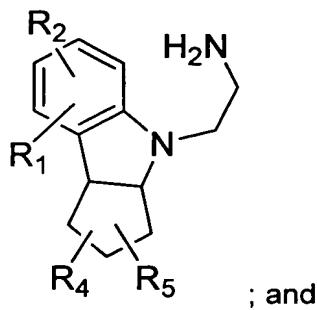


5

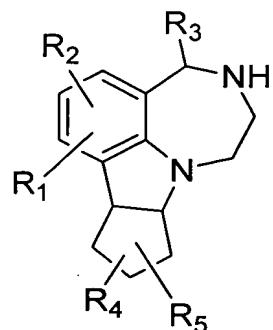
to an optionally substituted cyclopenta[b]indol-4-ylacetamide compound of the formula:



b) reducing the optionally substituted cyclopenta[b]indol-4-ylacetamide of step a) to the corresponding optionally substituted cyclopenta[b]indol-4-yl-amine of the formula:

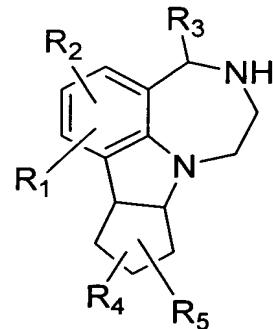


c) cyclizing the cyclopenta[b]indol-4-yl-amine of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

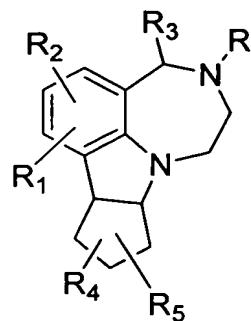


5

14. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

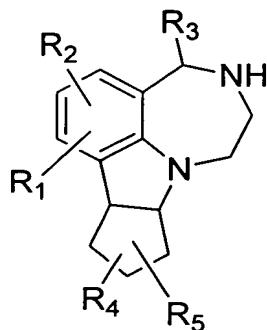


10 with an alkylating agent to produce a compound of the formula:

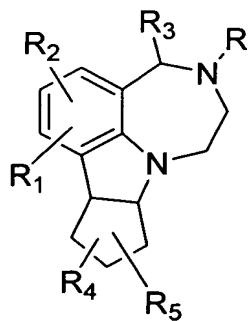


wherein R is alkyl of from 1 to 6 carbon atoms and R₁, R₂, R₃, R₄ and R₅ are as defined in Claim 1.

5 15. The process of Claim 13 further comprising the step of treating the diaza[cd]cyclopenta[a]azulene compound of the formula:

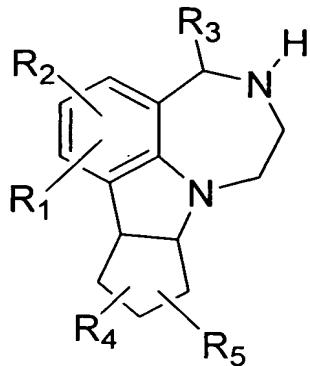


with an acylating agent to produce a compound of the formula:



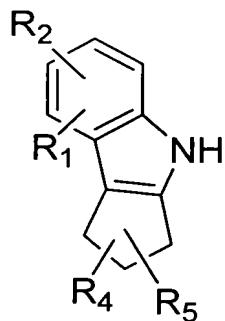
10 wherein R is -C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl; and R₁, R₂, R₃, R₄ and R₅ are as defined in Claim 1.

16. A process for preparing a compound of the formula:

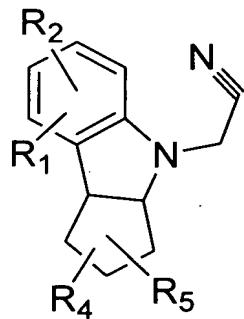


wherein R₁, R₂, R₃, R₄ and R₅ are as defined in Claim 1, the process comprising the steps of:

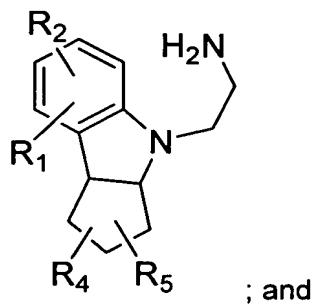
5 a) converting an optionally substituted cyclopenta[b]indole compound of the formula:



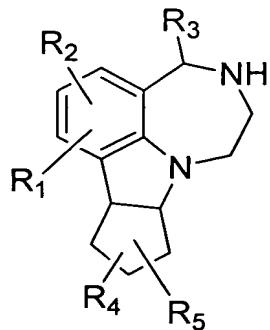
to an optionally substituted nitrile compound of the formula:



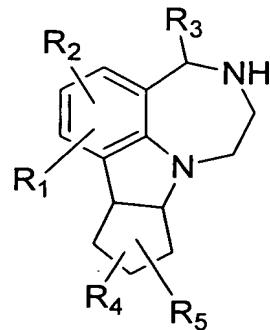
10 b) reducing the optionally substituted nitrile compound of step a) to provide an optionally substituted amine compound of the formula:



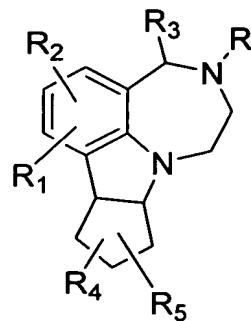
c) cyclizing the amine compound of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



Step 1.124
17
14. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

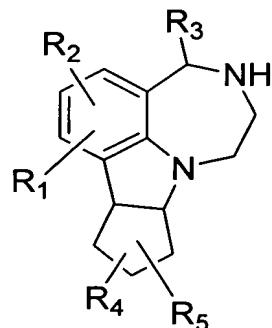


with an alkylating agent to produce a compound of the formula:

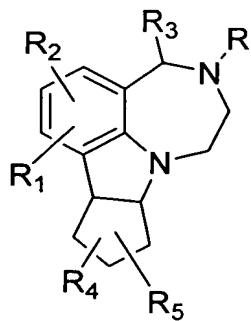


wherein R is alkyl of from 1 to 6 carbon atoms and R₁, R₂, R₃, R₄ and R₅ are as defined in Claim 1.

R2,R3,R4,R5 10. 11,12 18. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



with an acylating agent to produce a compound of the formula:



10 wherein R is -C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl; and R₁, R₂, R₃, R₄ and R₅ are as defined in Claim 1.